

TWENTY-THIRD ANNUAL REPORT
OF
THE COMMISSIONERS
OF THE
MASSACHUSETTS NAUTICAL
SCHOOL

JANUARY 1, 1915



BOSTON
WRIGHT & POTTER PRINTING CO., STATE PRINTERS
32 DERNE STREET
1915

APPROVED BY
THE STATE BOARD OF PUBLICATION.

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COMMISSIONERS
OF THE
MASSACHUSETTS NAUTICAL SCHOOL
2A PARK STREET, BOSTON

JOHN F. MERRY, *Chairman*

REAR ADMIRAL, U. S. N. (RETIRED)

HON. JOHN READ, LATE U. S. N.

WILLIAM E. MCKAY

WILLIAM H. DIMICK, *Secretary*

The Commonwealth of Massachusetts.

MASSACHUSETTS NAUTICAL SCHOOL.

To the Senate and House of Representatives of the Commonwealth of Massachusetts.

The commissioners have the honor to submit their report of the operations of the school for the year 1914.

THE WORK IN GENERAL.

The Massachusetts Nautical School has had the most successful year in its history. The school has been filled to its total capacity — 104 cadets — with many on the waiting list. It is a matter for regret that many qualified applicants were unable to enter owing to the limited size of the “Ranger,” the ship now used by the school. The opening of the Panama Canal, the remarkable increase in the tonnage of American shipping, the demand for American vessels for export commerce, and the extensive Boston Harbor improvements, have all brought the merchant marine prominently before the public and called attention to the unusual opportunities for young men in that direction. In view of the increasing demands upon the school, the commissioners believe it is advisable to obtain, if possible, a larger and more modern ship from the national government to replace the “Ranger.” In addition to accommodating more cadets, a larger ship would provide the additional space needed for drills and practical work. A ship having lockers and berthing space for 140 students would be desirable.

The “Ranger” sailed from Boston on May 21 for a summer cruise in the North Atlantic. When about 900 miles off the

coast, in latitude $38^{\circ} 30'$ north and longitude $58^{\circ} 10'$ west, the crank shaft worked loose. Two days later, after it had been found that the difficulty was beyond temporary repairs, it was decided to discontinue the cruise. The return passage, under sail, and steaming when possible, occupied two weeks. The "Ranger" arrived in Boston on June 11 and proceeded to the navy yard. Upon examination by a Board of Survey ordered by the Navy Department, it was determined that a new crank shaft would be required. The old shaft was taken out of the ship and the "Ranger" was towed to Gloucester on June 27, where the work of the summer was continued without further interruption. Although it was necessary to make many changes in the summer term schedule to meet the new conditions with which the commissioners were unexpectedly confronted, the work of the school was maintained at the usual standard. A further delay of about one month beyond the specified time for the delivery of the new shaft made it impossible to make a cruise as planned. The summer term ended on October 15.

While the ship was at Gloucester, the superintendent delivered an address on "The American Merchant Marine" before the Gloucester Board of Trade and a class of young men of the Gloucester High School.

A special course of lectures on maritime quarantine practice was given on board the "Ranger" during the winter term. The lectures were given by Assistant Surgeon M. Victor Safford of the Public Health Service, and were without expense to the State. While elementary instruction and practical lessons in quarantine regulations are included in the curriculum, it was considered desirable that the cadets receive the benefit of the advanced instruction offered by Surgeon-General Rupert Blue as a part of the educational work on maritime quarantine matters of the Public Health Service.

The graduates of the school continue to make good progress in the merchant marine. The steamship "Cristobal," the first steamer to pass through the Panama Canal, was steered by a graduate of this school, and the second officer of the steamship "Peter H. Crowell," the first Boston steamer to pass through the Panama Canal, is a graduate of the school in the class of 1912.

A movement is in progress in San Francisco to establish a state nautical school in California. Information regarding the work and results of the Massachusetts Nautical School has been furnished to those interested in this movement.

THE STEAMBOAT INSPECTION LAWS.

In the commissioners' report for the year 1913 attention was called to the fact that many of our graduates are fully qualified to accept positions as third officers at the age of nineteen years, but they are prevented from doing so by the rules of the United States Steamboat Inspection Service. If the graduates with the required sea service who have attained to the age of nineteen years were, upon passing a satisfactory examination, granted a third officer's license, covering vessels of 3,000 tons or under, it would more promptly utilize the efficient training of the school, and would relieve the difficulty experienced by shipowners in obtaining competent third officers. In support of the proposition it was stated that in Great Britain candidates can present themselves for a second officer's license at the age of seventeen years, and, in order to compete effectively with the mercantile marine of other countries, our citizens should be given similar privileges of early promotion; a man otherwise qualified should not be delayed in the receipt of a third officer's license because he has not attained the age of twenty-one years. In Norway, young men who have reached the age of seventeen years and have had at least two years' service at sea are qualified to make application for a second mate's license. They can present themselves for examination for a first mate's license upon reaching the age of eighteen years and six months after having had three years and six months service at sea; at least twelve months of such service must be in foreign-going steamships. The chairman, accompanied by the superintendent of the school, presented the matter before the Board of Supervising Inspectors at Washington on February 26. The New York and Pennsylvania nautical schools have also urged the Board of Supervisors to take favorable action upon this proposition. The matter will be taken up again with the national supervisors at their next meeting.

THE AMERICAN MERCHANT MARINE.

Three important events occurring during the year have had a marked effect upon the American merchant marine. The Panama Canal was opened to the general public on August 15, and, as was anticipated, a large trade is being developed between the ports on our Atlantic and Pacific seaboard. The commerce between the United States and the west coast of South America has also increased. From August 15 up to November 15, 278 vessels, aggregating 621,416 net tons, passed through the canal.

On Aug. 18, 1914, an amendment to the Panama Canal act became effective, allowing foreign built ships, owned by American citizens, to be admitted to American registry for deep-sea trade. Up to Dec. 24, 1914, 105 foreign vessels, aggregating 373,840 gross tons, had been admitted to American registry under this act. Probably at no time in the history of the country has our shipping increased with such rapidity as during the past six months. As the navigation laws which prescribe that officers on board American ships shall be American citizens have been suspended for seven years, the foreign officers on board these transferred ships can be retained for this period, but it is likely that vacancies will be filled with American officers. Graduates have recently been appointed officers on board three of these ships, the "Greenbrier," the "Robert Dollar" and the "Esparta."

The European war has abridged the activity of the German merchant marine, and many of the merchant vessels of Great Britain and France have been commandeered for military purposes. American ships are in great demand, and many of our coastwise ships are being chartered for foreign voyages.

SUMMER TERM.

The following is from the report upon the annual cruise by Comdr. Charles N. Atwater, U. S. N., superintendent of the school:—

From June 13 to June 25, while the damaged crank shaft was being removed from the ship, the cadets were granted leave, as was also the case from October 15, when the summer term ended, to the opening of

the winter term on October 26. Furthermore, a number of the upper classmen were granted leave during August, to enable them to gain cruising experience by going on brief voyages in merchant vessels, and during this time several were employed as quartermasters of steamers. From June 27 to September 2 the work of the school was carried on in Gloucester harbor. During this period studies were pursued much as in the winter term, and the exceptional facilities of the port were taken advantage of to make the cadets good boatmen under oars and sails.

The pupils of the school are earnest in their desire to qualify themselves for the sea. The conduct of the cadets was, with very few exceptions, excellent, and their conduct and appearance ashore were commented upon by Gloucester citizens, who assured me that their favorable impression was general.

Although the cadets missed much of the usual practical experience only obtainable by regular cruising, their summer's work, including the 2,800 miles at sea during May and June, was not without beneficial results, which, in part, compensate them for their loss.

MARINE ENGINEERING.

In addition to the experience of the cadets in repairs and operation of a disabled main engine, they were instructed in the following: care and operation of direct-connected engines and dynamos, and repairs to circuits of same; examination and cleaning of evaporator and boilers; firing and water-tending. While in port they were given charge, under supervision, of the operation of the boilers and auxiliary machinery. While at the navy yard they were taken to shops and vessels and instructed in direct-drive turbines of the Parsons and Curtis types and on mixed sets of reciprocating engines and turbines, all of which were opened up at the time, giving them a thorough idea of their construction.

While lying at Gloucester and at the navy yard, class work was carried on in engineering problems, and in particular those which they are most likely to meet in practice.

COAL REPORT.

	Tons.
Coal on hand and received,	444.19
Expended,	371.10
Remaining,	73.09
Expended as follows:—	
Moving ship,	170.44
Dynamos and auxiliaries,	167.98
Distilling,	13 16
Galley,	17.88
Heating,	1.64
Total,	371.10

MEDICAL DEPARTMENT.

From the beginning of the cruise in May until our return in September no member of the ship's crew was on the sick list. During that time 3 cadets were on the sick list, making a total of five days spent in the sick bay.

The routine spraying of the decks with a solution of formaldehyde has been apparently of marked value in preventing infectious diseases.

The weighing and measuring of cadets has yielded valuable information. Between December, 1913, and September, 1914, 9 cadets made gains of from 10 to 15 pounds each; 4 gained from 15 to 20 pounds, while 3 gained 28, 25 and 21 pounds, respectively. In the measurement of chest expansion 17 have a record of 3 to 4 inches and 8 are above 4 inches. One has a record of 5 inches expansion. The greatest physical improvement made by any cadet since coming to the school is as follows: weight increased from $114\frac{1}{4}$ to $149\frac{3}{4}$ pounds; height from 5 feet, $6\frac{1}{2}$ inches to 5 feet, $9\frac{1}{2}$ inches, and chest expansion from $1\frac{3}{4}$ to $3\frac{3}{4}$ inches.

THE WINTER TERM.

The winter term commenced on October 26 with an enrollment of 104 cadets, representing fifty-five cities and towns in the State.

The following is the study schedule for the winter term of 1914-15:—

Winter Schedule.

	First Class, Seamanship.	Second Class, Seamanship.	First Class, Engineers.	Second Class, Engineers.	Third Class, First Section.	Third Class, Second Section.	Fourth Class, First Section.	Fourth Class, Second Section.
Monday	(9-10, . 10-11, . 11-20-12, 12-12.40,)	Mathematics. Study. Navigation. Study.	Steam. Study. Mathematics. Study.	Study. Steam. Study. Mathematics.	Navigation. Study. Seamanship. Study.	Study. Navigation. Study. Seamanship.	Seamanship. Study. Steam. English.	Study. Seamanship. English. Steam.
Tuesday	(9-10, . 10-11, . 11-20-12, 12-12.40,)	Navigation. Study. English. Study.	Steam. Study. Electricity. Study.	Study. Steam. Study. Electricity.	Electricity. Study. Steam. Study.	Study. Electricity. Study. Steam.	Mathematics. Study. Navigation. Study.	Study. Mathematics. Study. Navigation.
Wednesday	(9-10, . 10-11, . 11-20-12, 12-12.40,)	Seamanship. Study. Navigation. Study.	English. Study. Electricity. Study.	Study. English. Study. Electricity.	Navigation. Study. Mathematics. Study.	Study. Navigation. Study. Mathematics.	Steam. Study. English. Study.	Study. Steam. English. Study.
Thursday	(9-10, . 10-11, . 11-20-12, 12-12.40,)	Navigation. Study. Mathematics. Study.	Steam. Study. English. Study.	Study. Steam. Study. English.	Seamanship. English. Steam. Study.	English. Seamanship. Study. Steam.	Mathematics. Study. Navigation. Study.	Study. Mathematics. Study. Navigation.
Friday	(9-10, . 10-11, . 11-20-12, 12-12.40,)	Seamanship. Study. English. Study.	Mathematics. Study. Steam. Study.	Study. Mathematics. Study. Steam.	English. Study. Mathematics. Study.	Study. English. Study. Mathematics.	Electricity. Study. Seamanship. Study.	Study. Electricity. Study. Seamanship.

From 2 to 5 p.m., practical work and drills; from 7 to 8.30 p.m., evening study hours.

Persons interested in the work of the school are cordially invited to visit the "Ranger" on any day except Saturday or Sunday, when the cadets are absent on home leave.

The following are the officers and instructors now connected with the school: —

Superintendent and commanding officer, Comdr. Charles N. Atwater, U. S. N.

Executive officer, Lient. Alfred H. Miles, U. S. N.

Navigator, A. Russell Cushing (graduate M. N. S.).

Watch officer, Chief Boatswain Albert Seeckts, U. S. N.

Watch officer, Albert L. Ware (graduate M. N. S.).

Chief engineer, Machinist John O'Neill, U. S. N.

Medical officer, Gardner N. Cobb, M.D.

Paymaster and captain's clerk, Theodore C. Howe, U. S. N.

Electrician, Charles A. Scott.

PERSONNEL.

April 24, 1914, Lient. Alfred H. Miles, U. S. N., detached by the Navy Department.

April 30, 1914, Frank L. Downey, instructor in electricity, resigned.

May 1, 1914, Chief Boatswain Henry Hudson, U. S. N., appointed executive officer.

May 6, 1914, Boatswain John Atley, U. S. N., ordered to the ship as watch officer.

July 15, 1914, Chief Boatswain Henry Hudson, U. S. N., executive officer, detached by the Navy Department.

Sept. 19, 1914, C. A. Scott, appointed instructor in electricity.

Oct. 19, 1914, Lient. Alfred H. Miles, U. S. N., ordered to the "Ranger" as executive officer.

December 21, 1914, Boatswain John Atley, U. S. N., detached.

Dec. 21, 1914, Chief Boatswain Albert Seeckts, U. S. N., ordered to the ship as watch officer.

REGISTER OF GRADUATES.

The following list includes some of the graduates who are following the sea; many names have been omitted on account of lack of space and there are others of whom the commissioners have no record.

Graduated.	NAME.	Residence.	Position.	Vessel.
1896	Alvin W. Haynes, .	Somerville, .	Pilot, . . .	Panama Canal.
1902	Osborne E. McKay, .	Provincetown, .	Pilot, . . .	Panama Canal.
1894	Henry G. Carpenter, ¹	Roxbury, .	Captain, . . .	"Frances Alice."
1894	James E. Reardon, .	Roxbury, .	Captain, . . .	"Santurce" (1,836 tons).
1895	George E. Eaton, .	Wakefield, .	Captain, . . .	"Anemone."
1896	Henry R. Bodge, .	Wollaston, .	Captain, . . .	"Northland" (3,282 tons).
1896	Wm. N. P. Baker, .	Dorchester, .	Captain, . . .	"Corozal" (3,063 tons).
1896	Geo. R. Lauriat, .	Medford, .	Captain, . . .	"Timothy Pickering."
1897	Fred'k A. Sparks, .	Provincetown, .	Captain, . . .	"Machigonne."
1897	Willis Howes, . . .	S. Yarmouth, .	Captain, . . .	"El Aguileia."
1897	Emery Rice, . . .	Brighton, .	Captain, . . .	"Mongolia" (13,658 tons).
1898	Louis E. Congdon, .	Boston, .	Captain, . . .	"Colorado" (2,764 tons).
1898	Carl E. A. Anderson, .	Roslindale, .	Captain, . . .	"Virginian" (7,914 tons).
1899	Richard T. Blackford, .	Marblehead, .	Captain, . . .	"Jessie Costa."
1900	William B. Knight, .	Hull, .	Captain and pilot,	"Bertha."
1900	James S. Howes, .	Woods Hole, .	Captain, . . .	"Alleghany" (1,704 tons).
1901	Theodore H. Bicknell, .	Melrose, .	Captain, . . .	"Herman Frasch" (3,803 tons).
1902	Herman T. Parker, .	Rockport, .	Captain, . . .	"Itasca" (1,416 tons).
1902	Arthur T. Luther, .	Swansea, .	Captain, . . .	"Empire."
1903	Nicholas J. Kane, .	Whitman, .	Captain, . . .	"Panaman" (6,649 tons).
1904	John F. Williamson, .	Brockton, .	Captain, . . .	"Myrtle."
1904	Andrew J. Iverson, .	Salem, .	Captain, . . .	Yacht "Virginian."
1906	George C. Bosson, .	Reading, .	Captain, . . .	Yacht "Traveler."
1908	Eugene P. Shevlin, .	E. Boston, .	Captain, . . .	"Gardenia."
1895	Walter J. Healey, .	Worcester, .	First officer, .	"Zulia."
1897	Chas. W. Clift, .	Whitman, .	First officer, .	"Gen. E. O. C. Ord."
1898	Harlowe Johnson, .	Mattapoisett, .	First officer, .	"Parthian."
1898	Eldon G. Freeman, .	Whitman, .	First officer, .	"Sequoia."
1899	Edward G. Smith, .	Boston, .	First officer, .	"Minnesotan."
1900	Alfred M. Cummings, .	Worcester, .	First officer, .	"Proteus."
1900	E. Newton Parker, .	Greenfield, .	First officer, .	"Nero."
1901	Robert W. Tucker, .	Kendal Green, .	First officer, .	"Kansan."

¹ Transferred.

Graduated.	NAME.	Residence.	Position.	Vessel.
1901	Chas. D. Harrington,	Cambridge,	First officer,	"Mascotte."
1902	Fred C. Seibert,	Greenfield,	First officer,	"Proteus."
1902	William I. O'Reilly,	S. Boston,	First officer,	"Queen."
1902	Edwin J. Madden,	Everett,	First officer,	"St. Louis."
1903	Robert B. Powers,	Brockton,	First officer,	"Cyclops."
1905	Fred'k S. Walker,	Dorchester,	First officer,	"Newton."
1905	James A. Crocker,	Nahant,	First officer,	"Frederick."
1905	Harry W. Maynard,	Winthrop,	First officer,	"Sumac."
1908	Ernest F. Robinson,	E. Boston,	First officer,	"Sterling."
1909	Carroll E. Higgins,	Somerville,	First officer,	American-Hawaiian Line.
1910	Chester R. Morris,	Springfield,	First officer,	"Myrtle."
1898	Charles H. Kilmer,	Somerville,	Second officer,	"Leonidas."
1899	Walter S. Lynch,	Chelsea,	Second officer,	"Liberty."
1900	Joseph E. Gately,	Marlborough,	Second officer,	"Monroe."
1901	John J. Coholan,	S. Boston,	Second officer,	"Malden."
1902	Arthur Jenson,	Provincetown,	Second officer,	"Nereus."
1902	Harry E. Boesch,	Wakefield,	Second officer,	"Momus."
1902	Wm. M. Chisholm,	N. Attleboro',	Second officer,	-
1903	Harold C. Rideout,	Concord,	Second officer,	"Comus."
1903	Benj. Connell,	Peabody,	Second officer,	"Philadelphia."
1904	Leslie F. Holmes,	E. Whitman,	Second officer,	"Antilles."
1906	Wm. H. Lee,	Roxbury,	Second officer,	"Arethusa."
1907	Harry L. Chick,	Beverly,	Second officer,	"Nanshan."
1907	Elmer B. Small,	N. Truro,	Second officer,	"Justin."
1907	Walter L. Smith,	Ashburnham,	Second officer,	"Oregonian."
1907	William M. Gifford,	Woods Hole,	Second officer,	"Cyclops."
1908	Edw. S. Ells, Jr.,	Cambridge,	Second officer,	"Abarenda."
1909	Eric E. Winquist,	Jamaica Plain,	Second officer,	"Proteus."
1909	Robert S. Sparrow,	Eastham,	Second officer,	"Washingtonian."
1909	Harold C. Cooper,	Worcester,	Second officer,	"Sterling."
1910	Franklin K. Tyler,	Beachmont,	Second officer,	"Geo. E. Warren."
1911	Eugene W. Miller,	E. Saugus,	Second officer,	"Minnesota."
1911	Chas. F. Fornason,	Gloucester,	Second officer,	"St. Paul."
1911	Harold S. Dexter,	Mattapoisett,	Second officer,	"Jason."
1912	Wm. A. Hamilton,	Cliftondale,	Second officer,	"Cæsar."
1912	Robert M. Gray,	Mel. Highlands,	Second officer,	"Peter H. Crowell."
1912	Alex. G. Perkins, Jr.,	Newburyport,	Second officer,	"Greenbrier."
1906	Wm. A. Manchester,	Campello,	Third officer,	"Nanshan."
1909	Wm. A. Sillars,	Danvers,	Third officer,	"Abarenda."

Graduated.	NAME.	Residence.	Position.	Vessel.
1911	Henry O. K. Hanson,	Neponset,	Third officer,	"George E. Warren."
1911	Fred'k J. Shaw,	Cambridge,	Third officer,	"Nereus."
1911	Raymond C. Vose,	Cambridge,	Third officer,	"Nacoochee."
1911	Wesley F. Besse,	S. Hanson,	Third officer,	"Robert Dollar."
1912	Clarence L. Howard,	Auburndale,	Third officer,	"Cæsar."
1912	Edw. A. Moore, Jr.,	Forest Hills,	Third officer,	"Solace."
1912	Ralph E. Merithew,	Haverhill,	Third officer,	"Carolina."
1912	Jos. M. Daniel,	Osterville,	Third officer,	"Montoso."
1912	Harold Ertel,	Longmeadow,	Third officer,	"Esparta."
1902	A. Russell Cushing,	Dorchester,	Navigating officer,	"Ranger."
1911	Albert L. Ware,	Cambridge,	Watch officer,	"Ranger."
1898	Joseph E. Sheedy,	Reading,	General superintendent.	Inter-Island Navigation Company.
1898	George F. Waite,	Winthrop,	Chief inspector of steamboats.	Providence, R. I.
1898	Clarence E. Wood,	Fall River,	Lieut.,	U. S. Navy.
1907	Thomas Baxter,	S. Dennis,	Ensign,	U. S. Navy.
1895	Philip W. Lauriat,	Medford,	1st Lieut., U. S. R. C. S.	"Algonquin."
1899	James A. Alger,	Reading,	1st Lieut., U. S. R. C. S.	"McCulloch."
1900	John F. McGourty,	Worcester,	2d Lieut., U. S. R. C. S.	Instructor revenue cutter.
1906	William F. Towle,	Boston,	2d Lieut., U. S. R. C. S.	Academy.
1896	Charles S. Young,	Boston,	Nautical expert,	Navy Department.
1897	Fred'k W. Jones,	Winchester,	Nautical expert,	Navy Department.
1900	Gershom Bradford,	Duxbury,	Nautical expert,	Navy Department.
1911	Charles C. Plummer,	Cambridge,	Nautical expert,	Navy Department.
1904	Edward C. Roberts,	Beverly,	1st Lieut.,	Philippine R. C. S.
1906	Clarence E. Nutting,	Cambridge,	1st Lieut.,	U. S. Marine Corps.
1903	Leander A. Clapp,	Brockton,	2d Lieut.,	U. S. Marine Corps.
1894	Horace W. Folger, ¹	Wilmington,	Pilot,	Boston Pilot Boat Service.
1900	I. Clarence Bailey,	Kingston,	Pilot,	Boston Pilot Boat Service.
1897	Orison W. Woodbury,	Lynn,	Mate,	"Ellesmere."
1897	Edwin F. Darling,	W. Dennis,	2d Mate,	"Dorothy Bradford."
1912	John W. Thompson,	Marion,	Cadet officer,	"Tulip."
1912	Herbert A. Burns,	New Bedford,	Cadet officer,	"Sunflower."
1895	Geo. A. Faulkner,	Roxbury,	Keeper,	Cape Cod Light.
1896	Jas. H. B. Meehan,	Lowell,	Chief engineer,	"Proteus" (19,000 tons).
1896	Christopher W. Soreuson,	Somerville,	Chief engineer,	"Nassau."
1897	Augustus T. Holmes,	Ipswich,	Chief engineer,	"J. M. Guffey" (2,520 tons).
1898	Charles E. Rowe,	Lynn,	Chief engineer,	"Ajax" (9,250 tons).
1898	John C. Ganser,	Jamaica Plain,	Chief engineer,	"Caribbean" (2,800 tons).
1898	Everett S. Ransom,	Mattapoisett,	Chief engineer,	"Parthenia."

¹ Transferred.

Graduated.	NAME.	Residence.	Position.	Vessel.
1899	Frank B. Davis, . .	Dorchester, .	Chief engineer, .	"Olivette" (1,678 tons).
1899	Forrest D. Clark, . .	Dorchester, .	Chief engineer, .	"Harvard" (3,737 tons).
1900	Hollis M. Cornwall, .	Melrose, .	Chief engineer, .	"Persian" (2,677 tons).
1900	William Glover, . .	Wilmington, .	Chief engineer, .	"J. H. Devereux" (1,618 tons).
1900	Norris R. Sibley, . .	Worcester, .	Chief engineer, .	"Col. Wikoff."
1900	Charles E. Lowe, . .	Roxbury, .	Chief engineer, .	"Mackinaw" (2,578 tons).
1900	Elmer P. Butterworth, .	Foxborough, .	Chief engineer, .	"J. M. Guffey" (2,520 tons).
1901	Robert A. Patterson, .	Brighton, .	Chief engineer, .	"Solace." (5,700 tons).
1901	David W. Warren, . .	Everett, .	Chief engineer, .	"Everett" (3,238 tons).
1901	Eugene I. K. Murphy, .	Worcester, .	Chief engineer, .	Government vessel, Panama Canal.
1902	Daniel F. Butler, . .	N. Easton, .	Chief engineer, .	"Gloria."
1904	Cecil L. McIntyre, . .	Upton, .	Chief engineer, .	-
1905	Walter C. Lockhart, .	Wakefield, .	Chief engineer, .	"Abarenda" (6,705 tons).
1895	Michael D. Sullivan, .	Boston, .	First engineer, .	"Enterprise."
1896	Forrest H. McIntyre, .	Gloucester, .	First engineer, .	"Daniel Millard."
1898	Frank P. Killion, . .	Malden, .	First engineer, .	"Kanai."
1898	Wm. E. Ballsdon, . .	Neponset, .	First engineer, .	"Jas. S. Whitney."
1898	Wilbur S. Lamont, . .	Leominster, .	First engineer, .	"Pocomoke."
1900	J. J. Donohue, . .	Cambridge, .	First engineer, .	"Oregon."
1900	James F. Rawdon, . .	Worcester, .	First engineer, .	"Tuscan."
1901	Frank A. Browne, . .	Westborough, .	First engineer, .	Isthmian Canal Commission.
1903	Edward A. Mercer, . .	Cambridge, .	First engineer, .	"Nero."
1903	James S. McGarry, . .	Shrewsbury, .	First engineer, .	"Creole."
1904	Charles W. Bumpus, . .	Wakefield, .	First engineer, .	"Cape Ann."
1904	Edw. J. Chadbourne, .	Reading, .	First engineer, .	"Henry F. Dimock."
1905	Fred G. Carlton, . .	Maynard, .	First engineer, .	"Onondaga."
1905	Charles F. Tarr, . .	Taunton, .	First engineer, .	"Cyclops."
1906	Augustus C. Caldwell, .	Dorchester, .	First engineer, .	"Ajax."
1906	Bradford N. A. Gladding, .	New Bedford, .	First engineer, .	"Solace."
1907	George H. Stickney, . .	Worcester, .	First engineer, .	"Nanshan."
1895	Fred'k H. Stackpole, .	Hyde Park, .	Second engineer, .	"City of Brockton."
1896	John O. Sargent, . .	Worcester, .	Second engineer, .	"St. Louis."
1897	Perley W. Kimpton, . .	Somerville, .	Second engineer, .	"Shawmut."
1898	Arthur P. Stevens, . .	Nantucket, .	Second engineer, .	"Ponce."
1900	Ressie E. Bowser, . .	N. Abington, .	Second engineer, .	"Nero."
1900	Earle P. Marshall, . .	N. Easton, .	Second engineer, .	"Uruguay."
1901	Sidney A. Maglathlin, .	W. Bridgewater, .	Second engineer, .	"Arethusa."
1902	Augustus W. Hart, . .	N. Truro, .	Second engineer, .	"Chippewa."
1902	Ernest L. Saunders, . .	Brockton, .	Second engineer, .	"Justin."

Graduated.	NAME.	Residence.	Position.	Vessel.
1905	Thomas W. Chisholm,	N. Billerica,	Second engineer,	"Arethusa."
1906	Victor M. Foster,	E. Boston,	Second engineer,	"Nacoochee."
1906	Arthur A. Burbank,	Carver,	Second engineer,	"Hector."
1907	Archie E. Bragg,	New Bedford,	Second engineer,	"Orion."
1907	Fred'k M. Coughlin,	N. Dartmouth,	Second engineer,	"Saturn."
1907	Jos. R. Wier,	Saundersville,	Second engineer,	"Nero."
1908	Thomas B. Pellett,	Worcester,	Second engineer,	"Abarenda."
1909	Samuel J. Miller,	Fall River,	Second engineer,	"Brutus."
1909	Ervin J. Kelley,	Medford,	Second engineer,	"Anemone."
1910	Leslie S. Badger,	Dorchester,	Second engineer,	"Seaconnet."
1910	Geo. W. Sibley,	Worcester,	Second engineer,	"Grecian."
1913	Russell A. McLay,	Lawrence,	Second engineer,	"Melrose."
1903	Rudolph Komenda,	Somerville,	Third engineer,	"Hannibal."
1908	Arthur E. Whiton,	Wakefield,	Third engineer,	"Justin."
1908	George H. Cameron,	Wakefield,	Third engineer,	"Orion."
1909	Fritz T. Kebler,	Rochdale,	Third engineer,	"Onondaga."
1909	Everett B. Ward,	Lynn,	Third engineer,	"Abarenda."
1910	Ernest B. Wyatt,	Wakefield,	Third engineer,	"Vulcan."
1911	Geo. L. Lockhart,	Wakefield,	Third engineer,	"Orion."
1911	Samuel D. White,	Hyannisport,	Third engineer,	"Everett."
1912	Louis H. Racicot,	Lowell,	Third engineer,	"Jason."
1912	Walter L. Brewster,	Somerville,	Third engineer,	—
1913	Earle A. Lewis,	Woods Hole,	Third engineer,	—
1897	Lorenzo C. Farwell,	Dorchester,	1st Lieut., Eng., U. S. R. C. S.	"Manning."
1896	Webb C. Maglathlin,	Bridgewater,	2d Lieut., Eng., U. S. R. C. S.	"Yumacraw."
1897	Albert F. Patterson,	Townsend,	2d Lieut., Eng., U. S. R. C. S.	"Alert."
1898	John T. Carr,	Malden,	2d Lieut., Eng., U. S. R. C. S.	"Gresham."
1906	Henry C. Roach,	New Bedford,	3d Lieut., Eng., U. S. R. C. S.	"McCulloch."
1907	Paul R. Smith,	Concord,	3d Lieut., Eng., U. S. R. C. S.	"Algonquin."
1895	Charles H. Lincoln,	Gloucester,	Marine surveyor,	Cleveland, Ohio.
1898	Herbert E. Fish,	Mattapoisett,	Chief machinist,	U. S. Navy.
1896	H. E. Kershaw,	Lawrence,	Machinist,	U. S. Navy.
1903	C. Allan Holbrook,	Marlborough,	Machinist,	"Idaho."
1900	Hugh H. McDonagh,	Worcester,	Electrician,	"Cæsar."
1902	John F. Murphy,	Worcester,	Electrician,	"Viper."
1903	Fred S. Garland,	Randolph,	Electrician,	"Alabama."
1903	Guy H. Hudson,	Somerville,	Electrician,	"Alabama."
1904	Charles A. Hill,	Melrose,	Electrician,	"Bay State."
1904	C. George Dyson,	Billerica,	Electrician,	"Delaware."

Graduated.	NAME.	Residence.	Position.	Vessel.
1905	Lawrence G. Kelley, . .	Taunton, . .	Electrician, . .	"Illinois."
1905	John F. Kinnaly, . .	S. Boston, . .	Electrician, . .	"Vermont."
1906	Carroll L. Morgan, . .	Beverly, . .	Navy wireless electrician.	San Juan, P. R.
1906	Louis H. Houghton, . .	Worcester, . .	Electrician, . .	"Missouri."
1906	William R. Dolan, . .	Worcester, . .	Chief electrician,	Norfolk, Va., Radio Station.
1907	Eugene E. Chaney, . .	Arlington, . .	Electrician, . .	"North Dakota."
1907	Louis L. LaMontagne, . .	Millers Falls, . .	Electrician, . .	"Pilgrim."
1910	Howell S. Loundes, . .	Worcester, . .	Electrician, . .	"Georgia."
1910	Charles H. Hutchinson, . .	Peabody, . .	Electrician, . .	"Sacramento."
1911	Harvey M. Thorndike, . .	Swampscott, . .	Electrician, . .	"Ajax."
1911	Patrick S. Coakley, . .	Malden, . .	Electrician, . .	"Maine."
1911	Walter P. Lynn, . .	Beverly, . .	Electrician, . .	"Alabama."

CADETS ADMITTED, GRADUATED, AND HONORABLY DISCHARGED, FROM 1893 TO 1914, INCLUSIVE.

	ADMITTED.			GRADUATED.			HONORABLY DISCHARGED.			Number connected with the School.
	Sea-manship Class.	Engineer Class.	Totals.	Sea-manship Class.	Engineer Class.	Totals.	Sea-manship Class.	Engineer Class.	Totals.	
1893,	138	-	138	-	-	-	29	-	29	138
1894,	42	21	63	-	-	-	26	17	43	156
1895,	33	38	71	19	19	38	6	6	12	156
1896,	35	39	74	20	17	37	16	15	31	174
1897,	32	41	73	20	21	41	10	10	20	165
1898,	42	57	99	15	25	40	12	14	26	194
1899,	34	45	79	11	12	23	24	17	41	184
1900,	28	50	78	14	36	50	9	12	21	186
1901,	37	71	108	11	18	29	8	12	20	172
1902,	32	58	90	16	22	38	16	18	34	197
1903,	34	32	66	17	14	31	10	15	25	178
1904,	-	-	60	16	29	45	5	12	17	165
1905,	-	-	65	10	10	20	-	-	9	137
1906,	-	-	50	16	19	35	-	-	18	145
1907,	-	-	60	10	15	25	-	-	17	133
1908,	-	-	45	8	9	17	-	-	9	110
1909,	-	-	81	14	22	36	-	-	7	156
1910,	-	-	54	6	15	21	-	-	16	151
1911,	-	-	69	20	23	43	-	-	16	168
1912,	-	-	57	17	16	33	-	-	14	157
1913,	-	-	69	21	19	40	-	-	20	174
1914,	-	-	65	20	16	36	-	-	22	171
	-	-	1,587	301	377	678	-	-	458	345

¹ Beginning in 1904, the cadets upon entrance are unclassified until their second year.

MEMBERSHIP OF THE SCHOOL.

Graduating Class, March, 1914.

Allen, Benjamin H., Jr.,	. . . . .	Lawrence.
Borden, Wilfred B.,	. . . . .	South Framingham.
Cashin, Ambrose J.,	. . . . .	Dorchester.
Davison, Harold J.,	. . . . .	Springfield.
Hubbel, Huelat N.,	. . . . .	Pittsfield.
Lee, Samuel J.,	. . . . .	Roxbury.
McCabe, Hugh V.,	. . . . .	Randolph.
Nutter, Nelson T.,	. . . . .	Newburyport.
O'Donoghue, Geoffrey C.,	. . . . .	Roxbury.
Orcutt, William H.,	. . . . .	Winthrop.
Peterson, Carl H.,	. . . . .	Norwood.
Reed, Ten Eyck H.,	. . . . .	South Framingham.
Severance, Leslie T.,	. . . . .	Cambridge.
Sweeney, James A.,	. . . . .	East Boston.
Tewksbury, Richard S.,	. . . . .	Winthrop.
Tucker, Charles P.,	. . . . .	Boston.
Tuell, Borden A.,	. . . . .	New Bedford.
Turner, Joseph L.,	. . . . .	Amherst.

Graduating Class, October, 1914.

Brewster, Fred H.,	. . . . .	Somerville.
Burton, Wesley H.,	. . . . .	Plainville.
Concannon, Joseph L.,	. . . . .	South Boston.
Crosby, Gerard R.,	. . . . .	Orleans.
Douglas, Herbert T.,	. . . . .	Somerville.
Fogarty, William H.,	. . . . .	Dorchester.
Francis, Joseph W.,	. . . . .	North Truro.
Gately, Grant,	. . . . .	Cambridge.
Gates, Samuel A.,	. . . . .	Malden.
Goodwin, Arthur C.,	. . . . .	Cambridge.
Harrington, F. Palmer,	. . . . .	Malden.
Horton, Laurence L.,	. . . . .	Eastham.
Kirchner, John L.,	. . . . .	Hinsdale.
Murphy, Edward F., Jr.,	. . . . .	Fall River.
Poole, Lester B.,	. . . . .	Marlborough.
Ruggles, Henry S.,	. . . . .	Dorchester.
Stowell, James A.,	. . . . .	Walpole.
Swinson, David H.,	. . . . .	East Gloucester.

Class to graduate, March, 1915.

Benhard, Leo A.,	Boston.
Bonner, William J.,	East Boston.
Burns, Laurence E.,	Winthrop.
Ciolkosz, Stanislaus P. J.,	Taunton.
Damon, Russell C.,	Quincy.
Davenport, William C.,	New Bedford.
Fales, Curtis C.,	Westborough.
Gerecke, Bernhardt,	Boston.
Hartwell, Roy C.,	Boston.
Herron, Wilfred C.,	Lawrence.
Holmes, John,	Campello.
Horan, George T.,	Nantucket.
Hovgaard, Arthur A.,	Brookline.
Hurley, Charles H., Jr.,	Westminster.
Jacobson, Charles P.,	Everett.
Moore, Ralph S.,	Newton.
Rhodes, Edward R.,	Lowell.
Stevens, Clarence E., Jr.	West Barnstable.
Stewart, Roy,	Everett.
Winqvist, Arvid H.,	Jamaica Plain.

Class to graduate, October, 1915.

Bamforth, Charles N.,	Concord.
Barrett, Sherman J.,	Lawrence.
Comeau, Martin F.,	Belmont.
Craven, Harold,	Lawrence.
Delano, David P.,	Orleans.
Durney, Philip J.,	Gloucester.
Flagg, Osgood R.,	Southborough.
Ford, Ronald B.,	Lawrence.
Forte, Louis B.,	West Newton.
Gaughen, John J.,	South Boston.
Griffith, Charles E.,	North Cambridge.
Hammond, Earle D.,	East Mattapoisett.
Higgins, Arthur F.,	Lawrence.
Jones, Albert V.,	Fall River.
Konrad, Leif H.,	Mattapan.
Linehan, Mark E.,	North Easton.
Marshall, Leland M.,	Revere.
Mayo, Herman S.,	Provincetown.
Nichols, Sidney F.,	Worcester.
Nimmo, Frank L.,	Cambridge.
Pope, Charles,	Springfield.
Rice, Warren E.,	Ashland.

Saunders, Russell L.,	Boston.
Sheridan, Edward B.,	Lowell.
Stanley, Edward S.,	Whitman.
Waite, Frederick T.,	Winthrop.

Class to graduate, March, 1916.

Berglund, C. Edwin,	Brockton.
Congdon, Harold R.,	Boston.
Dean, Ira D.,	South Natick.
Doane, Harvey A.,	Malden.
Elder, Randall F.,	East Boston.
Gorman, Paul,	Haverhill.
Harrington, George E.,	Worcester.
Jakmauh, Peter J.,	South Boston.
Lynch, James L.,	Roslindale.
Mahoney, J. Prescott,	West Wareham.
Marshall, John H.,	Wilmington.
Martell, Charles A.,	Somerville.
Perrin, Frank M.,	Worcester.
Phillips, Alexander J.,	Easton.
Reed, Carelton G.,	Lexington.
Roddy, John P.,	Fitchburg.
Rylander, John A.,	Springfield.
Simmons, John W.,	Springfield.
Stevens, Percy C.,	West Barnstable.
Thomas, William W.,	Randolph.
Upton, John,	Upton.
Wadleigh, George E.,	Boston.

Class to graduate, October, 1916.

Bain, Joseph A.,	Lawrence.
Beauvais, Waldo H.,	Worcester.
Bianchi, Albert,	Worcester.
Browne, Paul H.,	Roslindale.
Chase, Howard U.,	Nantucket.
Collins, Clayton W.,	Waquoit.
Condrey, Joseph P.,	Lowell.
Crowell, John T., Jr.,	Gloucester.
Dunphe, Richard H.,	Brockton.
Erickson, John,	New Bedford.
Fickett, Edward,	East Boston.
Fletcher, Edwin T.,	Springfield.
Gallishaw, Frank L.,	Cambridge.
Graham, Austin P., Jr.,	Everett.
Guba, Henry A.,	New Bedford.

Gurney, Darrough S.,	Marion.
Hutchinson, Leanord H.,	Georgetown.
Ireland, Harold S.,	Somerville.
Kenney, Arthur J.,	Brookline.
Lord, William E.,	Springfield.
Lufkin, Thomas B.,	Gloucester.
Millin, Anthony P.,	Ipswich.
O'Sullivan, N. Eugene,	Winchester.
Paine, Byron H.,	New Bedford.
Pease, Elmer F.,	Nantucket.
Pilkington, John E.,	Mansfield.
Polansky, Isaac,	Salem.
Preston, William K.,	Beverly.
Ross, Archie D.,	Dorchester.
Sanford, Harold W.,	Springfield.
Smith, Royce W.,	Boston.
Standley, Richard A.,	Beverly.
Stanley, Clifford E.,	Salem.
Wilcox, Fred E.,	Indian Orchard.
Woodaman, Lewis E.,	Worcester.

Boston, Jan. 1, 1915.

FEDERAL AND STATE LEGISLATION.

AUTHORITY OF THE UNITED STATES.

H. R. 24145. APPROVED MARCH 4, 1911.

(Original Act passed June 20, 1874.)

AN ACT FOR THE ESTABLISHMENT OF MARINE SCHOOLS, AND FOR OTHER PURPOSES.

That the Secretary of the Navy, to promote nautical education, is hereby authorized and empowered to furnish, upon the application in writing of the governor of a State, a suitable vessel of the navy, with all her apparel, charts, books, and instruments of navigation, provided the same can be spared without detriment to the naval service, to be used for the benefit of any nautical school, or school or college having a nautical branch, established at each of the following ports of the United States: Boston, Philadelphia, New York, Seattle, San Francisco, Baltimore, Detroit, Saginaw, Michigan, Norfolk, and Corpus Christi, upon the condition that there shall be maintained at such port a school or branch of a school for the instruction of youths in navigation, steamship-marine engineering, and all matters pertaining to the proper construction, equipment, and sailing of vessels or any particular branch thereof.

SECTION 2. That a sum not exceeding the amount annually appropriated by any State or municipality for the purpose of maintaining such a marine school or schools or the nautical branch thereof is hereby authorized to be appropriated for the purpose of aiding in the maintenance and support of such school or schools: *provided, however*, that appropriations shall be made for one school in any port heretofore named in section one and that the appropriation for any one year shall not exceed twenty-five thousand dollars for any one school.

SECTION 3. That the President of the United States is hereby authorized, when in his opinion the same can be done without detriment to the public service, to detail proper officers of the navy as superintendents of or instructors in such schools: *provided*, that if any such school shall be discontinued, or the good

of the naval service shall require, such vessel shall be immediately restored to the Secretary of the Navy and the officers so detailed recalled: *and provided further*, that no person shall be sentenced to or received at such schools as a punishment or commutation of punishment for crime.

SECTION 4. That all laws and parts of laws in conflict herewith are hereby repealed.

AUTHORITY OF THE STATE OF MASSACHUSETTS.

CHAPTER 45, REVISED LAWS, AS AMENDED BY CHAPTER 171, ACTS OF 1903, AND CHAPTER 224, ACTS OF 1913.

THE NAUTICAL SCHOOL.

SECTION 1. There shall be a board of commissioners of the Massachusetts nautical school consisting of three citizens of the commonwealth, one of whom shall annually, before the first day of July, be appointed by the governor, with the advice and consent of the council, for a term of three years from said first day of July.

SECTION 2. Said commissioners shall serve without compensation, but they shall be reimbursed by the commonwealth for all expenses actually incurred by them in the performance of their official duties.

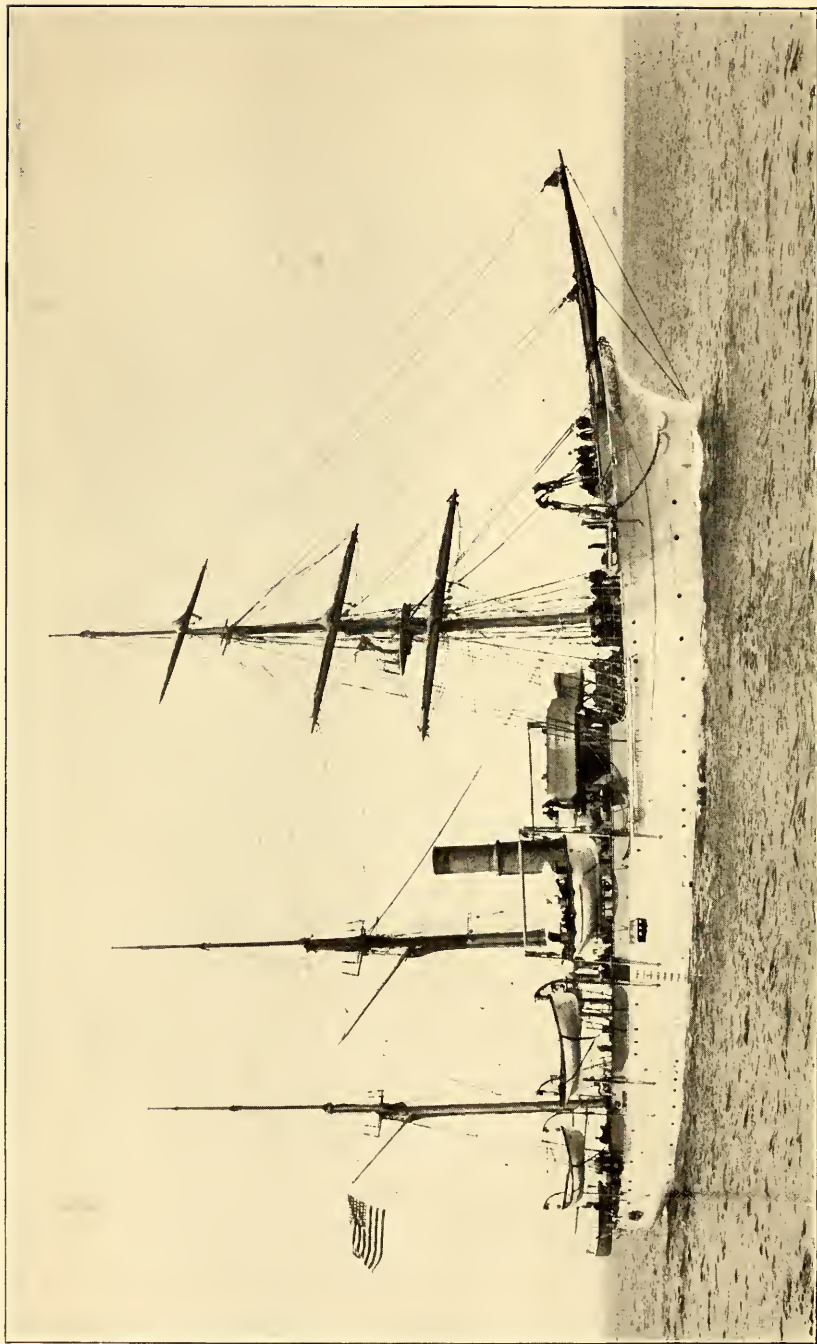
SECTION 3. They shall provide and maintain a nautical school for the instruction and training of pupils in the science and practice of navigation, shall provide accommodations for the school on board a proper vessel, purchase and provide books, stationery, apparatus and supplies needed in the work of the school, appoint and remove instructors and other necessary employees, determine their number and compensation, fix the terms and conditions upon which pupils shall be received and instructed in the school and be discharged or dismissed therefrom, establish all regulations necessary for its proper management and shall from time to time provide for cruises in or from the harbor of Boston.

SECTION 4. They may receive from the United States government, and use for the accommodation of the school, such vessels as the secretary of the navy may detail.

SECTION 5. They may annually expend such sum as the general court may from year to year appropriate, which shall be paid by the commonwealth; and they shall annually submit an

estimate of the expense required in making cruises in or from the harbor of Boston, and the amount of said estimate, after approval by the governor and council and subject to the provisions of chapter six, shall be advanced to the commanding officer of the vessel detailed therefor, who shall give a bond in the sum of ten thousand dollars, with sureties approved by the governor and council, for its proper disbursement. Said advance shall not exceed ten thousand dollars for six months, and shall be accounted for by properly approved vouchers within thirty days after the termination of said cruises.

SECTION 6. They shall annually, in January, report to the general court a detailed statement of all moneys appropriated and expended during the preceding year for the nautical school, stating the results of the work during such year and making any necessary recommendations.



The Massachusetts Nautical Training Ship "Ranger" Leaving Boston Harbor on the Summer Cruise.